

1. A connection-sensitive domain name resolution device, comprising:
a data component identifying IP addresses for at least two paths to a server which
has a domain name; and
a code component which receives a domain name resolution request specifying
5 the domain name, selects an IP address from the data component based on
information about the status of a path to the server, and supplies the
selected IP address in response to the domain name resolution request.

2. The connection-sensitive domain name resolution device of claim 1,
10 wherein IP addresses in the data component identify routers on paths to the server, and
the code component avoids selecting the IP address of a router that is on a path to the
server but is not available.

3. The connection-sensitive domain name resolution device of claim 1,
15 wherein IP addresses in the data component identify routers on paths to the server, and
the code component selects the IP address in a round-robin manner by selecting the next
IP address in a list of IP addresses of routers that are on paths to the server and are
available when the selection is made.

20 4. The connection-sensitive domain name resolution device of claim 1,
wherein the code component selects the IP address of an under-loaded path, thereby
tending to balance the loads on the paths to the server.

5. The connection-sensitive domain name resolution device of claim 1,
wherein the device is placed between the server and a router for the server.

6. The connection-sensitive domain name resolution device of claim 1, in
combination with a router for the server, the router having multiple connections to the
Internet.

7. The connection-sensitive domain name resolution device of claim 1, in
combination with a server-sensitive domain name resolver, wherein the combination
performs load-balancing over server paths and also performs load-balancing over
multiple servers.

8. A method for distributing domain name resolution results over multiple
paths, the method comprising the steps of:

receiving a domain name resolution request which requests an IP address
corresponding to a specified domain name;

determining that at least one candidate connection component is operating reliably

and thus is a reliable connection component, the reliable connection
component being in a path to a server having the domain name, the

reliable connection component having an IP address; and

supplying the IP address of the reliable connection component in a response to the
resolution request, thereby directing traffic to the server over a path
through the reliable connection component.

9. The method of claim 8, further comprising the steps of determining the load on at least one candidate connection component and selecting a connection component which is not over-loaded, the selected connection component having an IP address and being in a path to the server having the domain name, wherein the supplying step comprises sending the IP address of the selected connection component in a response to the resolution request, thereby directing traffic to the server over a path through the connection component that is both reliable and not over-loaded.

10. The method of claim 8, further comprising the step of adjusting the time-to-live to be associated with a DNS record for an IP address in a path to the server.

11. The method of claim 8, further comprising the step of pinging a router on a path to the server to determine if the router is a reliable connection component.

12. The method of claim 8, further comprising the step of performing a router status inquiry to determine the router's load.

13. A computer-readable storage medium having a configuration that will cause performance of a method for connection-sensitive domain name resolution when multiple connections to a web server are potentially available, the method comprising:
receiving a DNS resolution request;
selecting an IP address based on connection component status; and

supplying the selected IP address in response to the request.

14. The configured medium of claim 13, wherein the selecting step comprises determining whether a connection responds to pings.

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15. The configured medium of claim 13, wherein the selecting step comprises selecting an IP address of the next available path in a round-robin manner.

16. The configured medium of claim 13, wherein the selecting step comprises determining whether a router is under-loaded.

17. The configured medium of claim 13, further comprising the step of setting a DNS record time-to-live.

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